

Service Manual

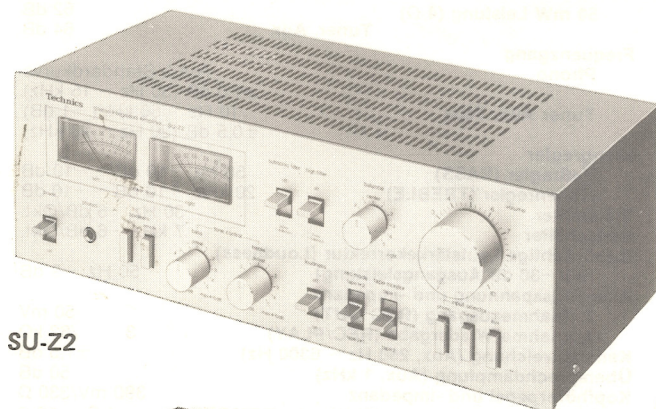
Stereo Integrated Amplifier

SU-Z2

[E],[EG],[XGH],[XGF],
[EB],[XE],[XAL],[XA]

SU-Z2 (K)

[E],[EG],[XGH],
[EB],[XE]



SU-Z2



SU-Z2(K)

Areas

- * [E] and [EG] are available in European and Scandinavia.
- * [XGH] is available in Holland.
- * [XGF] is available in France.
- * [EB] is available in Belgium.
- * [XE] is available in United Kingdom.
- * [XAL] is available in Australia.
- * [XA] is available in Asia, Latin America, Middle East and Africa.

TECHNICAL SPECIFICATIONS Specifications are subject to change without notice for further improvement.

(DIN 45 500)

AMPLIFIER SECTION

20 Hz~20 kHz continuous power output both channels driven	2 × 35W (4Ω) 2 × 35W (8Ω)
40 Hz~16 kHz continuous power output both channels driven	2 × 35W (4Ω) 2 × 35W (8Ω)
1 kHz continuous power output both channels driven	2 × 40W (4Ω) 2 × 38W (8Ω)
Total harmonic distortion	
rated power at 20 Hz~20 kHz	0.05% (4Ω) 0.03% (8Ω)
rated power at 40 Hz~16 kHz	0.05% (4Ω) 0.03% (8Ω)
rated power at 1 kHz	0.03% (4Ω) 0.03% (8Ω)
half power at 20 Hz~20 kHz	0.025% (8Ω)
half power at 1 kHz	0.015% (8Ω)
-26 dB power at 1 kHz	0.15% (4Ω)
50 mW power at 1 kHz	0.2% (4Ω)
Intermodulation distortion	
rated power at 250 Hz: 8 kHz=4:1, 4Ω	0.05%
rated power at 60 Hz: 7 kHz=4:1, SMPTE, 8Ω	0.03%
Power bandwidth	
both channels driven, -3 dB (THD 0.05%)	10 Hz~25 kHz (4Ω) 10 Hz~30 kHz (8Ω)
Residual hum and noise	0.65 mV
Damping factor	25 (4Ω), 50 (8Ω)
Input sensitivity and impedance	
PHONO	2.5 mV/47kΩ
TUNER, AUX	150 mV/27kΩ
TAPE 1 REC/PLAY	180 mV/33kΩ
TAPE 2	150 mV/27kΩ
PHONO maximum input voltage (1 kHz, RMS)	150 mV

S/N

rated power (4Ω)	PHONO	71 dB (IHF, A: 71 dB)
-26 dB power (4Ω)	TUNER, AUX	85 dB (IHF, A: 95 dB)
50 mW power (4Ω)	PHONO	63 dB
	TUNER, AUX	65 dB
	PHONO	62 dB
	TUNER, AUX	64 dB

Frequency response

PHONO	RIAA standard curve
	±1.0 dB (30 Hz~15 kHz)
	10 Hz~50 kHz (-1 dB)
	±0.5 dB (20 Hz~20 kHz)

TUNER, AUX, TAPE

Tone controls	
BASS	50 Hz, +10 dB ~ -10 dB
TREBLE	20 kHz, +10 dB ~ -10 dB
Subsonic filter	30 Hz, -6 dB/oct.
High-cut filter	7 kHz, -6 dB/oct.
Loudness control (volume at -30 dB)	50 Hz, +9 dB
Output voltage and impedance	
REC OUT	150 mV
REC/PLAY	30 mV/82kΩ
Channel balance, AUX 250 Hz~6,300 Hz	±1.5 dB
Channel separation, AUX 1 kHz	50 dB
Headphones output level and impedance	390 mV/330Ω
Load impedance	
MAIN or REMOTE	4Ω~16Ω
MAIN and REMOTE	8Ω~16Ω

GENERAL

Power consumption	415W
Power supply	AC 50 Hz/60 Hz, 110V/120V/220V/240V
Dimensions (W×H×D)	410 × 142 × 219 mm (16-5/32" × 5-19/32" × 8-5/8")
Weight	5.7 kg (12.6 lb.)

Technics

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

TECHNISCHE DATEN (DIN 45 500)

Spezifikationen können infolge von Verbesserungen ohne Ankündigung geändert werden.

VERSTÄRKERTEIL

Dauerton-Ausgangsleistung bei 20 Hz ~ 20 kHz beide Kanäle ausgesteuert	2 × 35W (4 Ω) 2 × 35W (8 Ω)
Dauerton-Ausgangsleistung bei 40 Hz ~ 16 kHz beide Kanäle ausgesteuert	2 × 35W (4 Ω) 2 × 35W (8 Ω)
Dauerton-Ausgangsleistung bei 1 kHz beide Kanäle ausgesteuert	2 × 40W (4 Ω) 2 × 38W (8 Ω)
Gesamtklirrfaktor	
Nennleistung bei 20 Hz ~ 20 kHz	0,05% (4 Ω) 0,03% (8 Ω)
Nennleistung bei 40 Hz ~ 16 kHz	0,05% (4 Ω) 0,03% (8 Ω)
Nennleistung bei 1 kHz	0,03% (4 Ω) 0,03% (8 Ω)
halbe Nennleistung bei 20 Hz ~ 20 kHz	0,025% (8 Ω)
halbe Nennleistung bei 1 kHz	0,015% (8 Ω)
-26 dB Leistung bei 1 kHz	0,15% (4 Ω)
50 mW Leistung bei 1 kHz	0,2% (4 Ω)
Intermodulationsfaktor	
Nennleistung bei 250 Hz: 8 kHz = 4:1, 4 Ω	0,05%
Nennleistung bei 60 Hz: 7 kHz = 4:1, nach SMPTE, 8 Ω	0,03%
Leistungsbandbreite	
beide Kanäle ausgesteuert bei -3 dB (THD 0,05%)	10 Hz ~ 25 kHz (4 Ω) 10 Hz ~ 30 kHz (8 Ω)
Restbrumm und Geräusch	0,65 mV
Dämpfungsfaktor	25 (4 Ω), 50 (8 Ω)
Eingangsempfindlichkeit und -impedanz	
Phono	2,5 mV/47 kΩ
Tuner, Aux	150 mV/27 kΩ
Tape 1 Aufnahme/Wiedergabe (TAPE 1 REC/PLAY)	180 mV/33 kΩ
Tape 2	150 mV/27 kΩ
Maximale TA-Eingangsspannung (1 kHz, eff.)	150 mV

Geräuschabstand	
Nennleistung (4 Ω) Phono	71 dB (nach IHF, A: 71 dB)
Tuner, Aux	85 dB (nach IHF, A: 95 dB)
-26 dB Leistung (4 Ω) Phono	63 dB
Tuner, Aux	65 dB
50 mW Leistung (4 Ω) Phono	62 dB
Tuner, Aux	64 dB
Frequenzgang	
Phono	RIAA-Standardkurve ±1,0 dB (30 Hz ~ 15 kHz)
Tuner Aux, Tape	10 Hz ~ 50 kHz (-1 dB) ±0,5 dB (20 Hz ~ 20 kHz)
Klangregler	
Baßregler (BASS)	50 Hz, +10 dB ~ -10 dB
Höhenregler (TREBLE)	20 kHz, +10 dB ~ -10 dB
Tiefenfilter	30 Hz, -6 dB/Okt.
Rauschfilter	7 kHz, -6 dB/Okt.
Gehörhörliche Lautstärkekorrektur (Loudness) (bei -30 dB Ausgangsleistung)	50 Hz, +9 dB
Ausgangsspannung und -impedanz	
Aufnahmeausgang (REC OUT)	150 mV
Aufnahme/Wiedergabe (REC/PLAY)	30 mV/82 kΩ
Kanalabweichung (Aux, 250 Hz ~ 6300 Hz)	±1,5 dB
Übersprechdämpfung (Aux, 1 kHz)	50 dB
Kopfhörerpegel und -impedanz	390 mV/330 Ω
Lautsprecherimpedanz	MAIN oder REMOTE MAIN und REMOTE 4 Ω ~ 16 Ω 8 Ω ~ 16 Ω

ALLEGEMEINE DATEN

Leistungsaufnahme	415 W
Netzspannung	Wechselstrom 50 Hz/60 Hz, 110V/120V/220V/240V
Abmessungen (B×H×T)	410 × 142 × 219 mm
Gewicht	5,7 kg

CARACTERISTIQUES TECHNIQUES (DIN 45 500)

Sujet à changement sans préavis.

SECTION AMPLIFICATEUR

Puissance de sortie continue de 20 Hz~20 kHz, les deux canaux en circuit	2 × 35W (4Ω) 2 × 35W (8Ω)
Puissance de sortie continue de 40 Hz~16 kHz, les deux canaux en circuit	2 × 35W (4Ω) 2 × 35W (8Ω)
Puissance de sortie continue à 1 kHz les deux canaux en circuit	2 × 40W (4Ω) 2 × 38W (8Ω)
Distorsion harmonique totale	
à puissance nominale (20 Hz~20 kHz)	0,05% (4Ω) 0,03% (8Ω)
à puissance nominale (40 Hz~16 kHz)	0,05% (4Ω) 0,03% (8Ω)
à puissance nominale (1 kHz)	0,03% (4Ω) 0,03% (8Ω)
à demi-puissance (20 Hz~20 kHz)	0,025% (8Ω)
à demi-puissance (1 kHz)	0,015% (8Ω)
puissance de -26 dB à 1 kHz	0,15% (4Ω)
puissance de 50 mW à 1 kHz	0,2% (4Ω)
Distorsion d'intermodulation	
à puissance nominale à 250 Hz: 8 kHz=4:1, 4Ω	0,05%
à puissance nominale à 60 Hz: 7 kHz=4:1, SMPTE, 8Ω	0,03%
Réponse de fréquences	
les deux canaux en circuit, -3 dB (THD 0,05%)	10 Hz~25 kHz (4Ω) 10 Hz~30 kHz (8Ω)
Bruit et ronflement résiduels	0,65 mV
Coefficient d'amortissement	25 (4Ω), 50 (8Ω)
Sensibilité et impédance d'entrée	
PHONO	2,5 mV/47kΩ
SYNTHONISATEUR, AUX (TUNER, AUX)	150 mV/27kΩ
BANDE 1, ENREGISTREMENT/LECTURE (TAPE 1 REC/PLAY)	180 mV/33kΩ
BANDE 2 (TAPE 2)	150 mV/27kΩ
PHONO (tension d'entrée maximum, 1 kHz RMS)	150 mV
Signal/Bruit	
à puissance nominale (4Ω)	
PHONO	71 dB (IHF, A: 71 dB)
SYNTHONISATEUR, AUX (TUNER, AUX)	85 dB (IHF, A: 95 dB)

puissance de -26 dB (4Ω)	
PHONO	63 dB
SYNTHONISATEUR, AUX (TUNER, AUX)	65 dB
puissance de 50 mW (4Ω)	
PHONO	62 dB
SYNTHONISATEUR, AUX (TUNER, AUX)	64 dB
Réponse de fréquence	
PHONO	Courbe nominale RIAA ±1,0 dB (30 Hz~15 kHz)
SYNTHONISATEUR, AUX, BANDE (TUNER, AUX, TAPE)	10 Hz~50 kHz (-1 dB) ±0,5 dB (20 Hz~20 kHz)
Réglage de la tonalité	
BASSES (BASS)	50 Hz, +10 dB ~ -10 dB
AIGUS (TREBLE)	20 kHz, +10 dB ~ -10 dB
Filtre subsonique	30 Hz, -6 dB/oct.
Filtre coupe-hauts	7 kHz, -6 dB/oct.
Compensateur physiologique (volume à -30 dB)	50 Hz, +9 dB
Tension de sortie et impédance	
SORTIE ENREGISTREMENT (REC OUT)	150 mV
ENREGISTREMENT/LECTURE (REC/PLAY)	30 mV/82kΩ
Equilibrage des canaux, AUX 250 Hz~6 300 Hz	±1,5 dB
Séparation des canaux, AUX 1 kHz	50 dB
Niveau de sortie des casques et impédance	390 mV/330Ω
Impédance de charge	
PRINCIPALE ou AUXILIAIRE (MAIN or REMOTE)	4Ω~16Ω
PRINCIPALE et AUXILIAIRE (MAIN and REMOTE)	8Ω~16Ω

DIVERS

Consommation	415W
Alimentation	CA 50 Hz/60 Hz, 110V/120V/220V/240V
Dimensions (L×H×Pr)	410 × 142 × 219 mm (16-5/32" × 5-19/32" × 8-5/8")
Poids	5,7 kg (12,6 lb.)

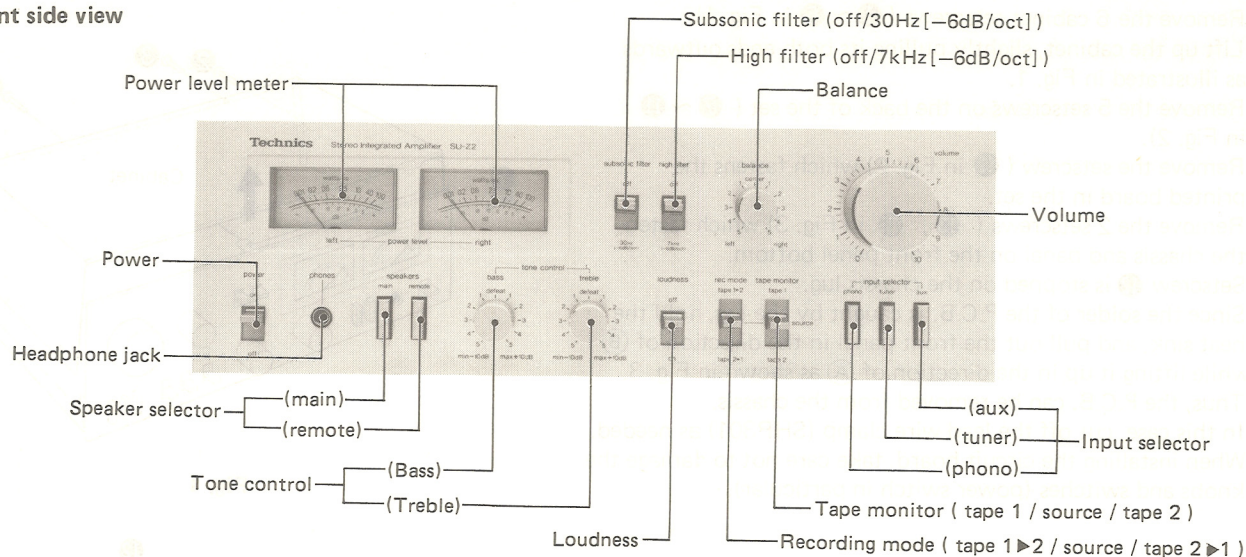
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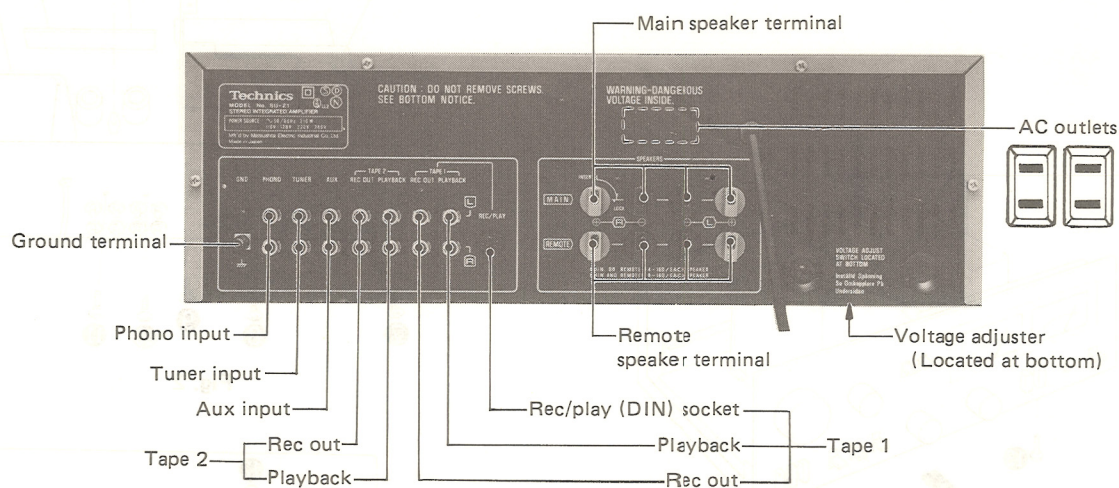
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■ LOCATION OF CONTROLS

● Front side view

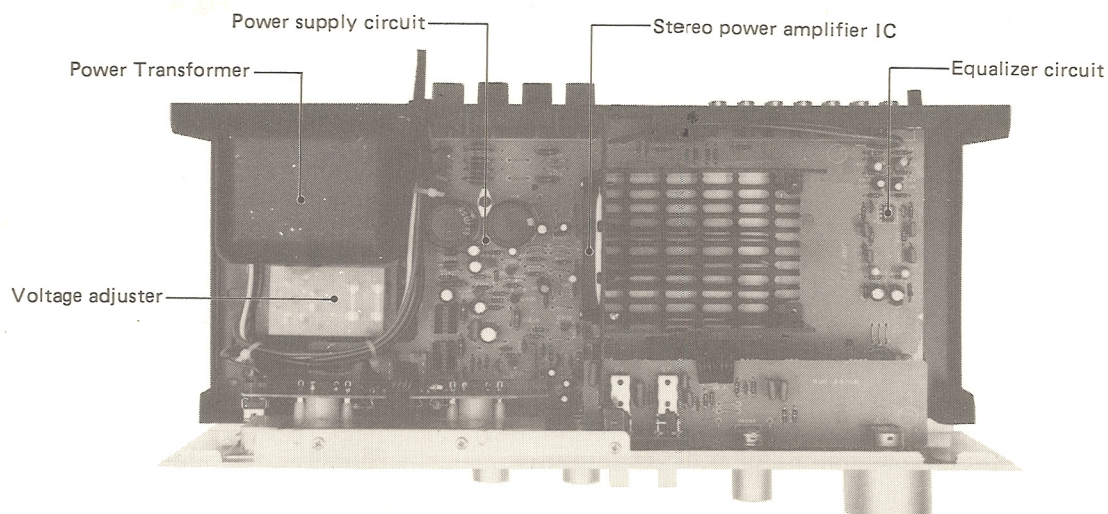


● Rear side view



AC outlets are not equipped on units some areas.

● Inside view



■ HOW TO REMOVE P.C.B.

1. Remove the 6 cabinet setscrews (① ~ ⑥ in Fig. 1).
2. Lift up the cabinet, slightly pulling its both ends outwards as illustrated in Fig. 1.
3. Remove the 5 setscrews on the back of the set (⑦ ~ ⑪ in Fig. 2).
4. Remove the setscrew (⑫ in Fig. 2) which fastens the printed board in the set.
5. Remove the 2 setscrews (⑬, ⑮ in Fig. 3) which fasten the chassis and panel on the front panel bottom.
6. Setscrew ⑫ is stopped on the chassis lug.
Since the solder of the P.C.B. is caught by the lug, hold the heat sink, and pull out the front panel in the direction of ② while lifting it up in the direction of ① as shown in Fig. 3.
7. Thus, the P.C.B. can be removed from the chassis.
In this case, cut off the lead wire clamp (SHR301) as needed.
8. When installing the circuit board, take care not to damage the knobs and switches (power switch in particular).

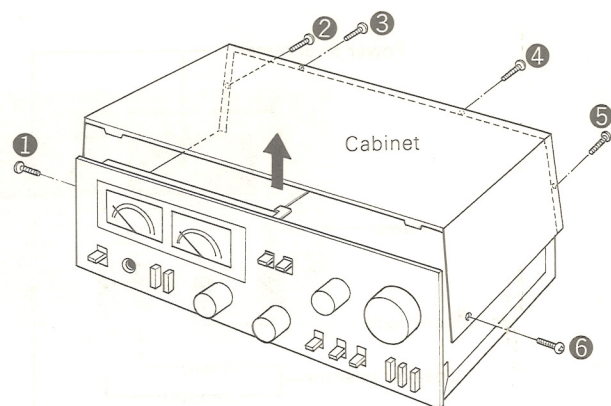


Fig. 1

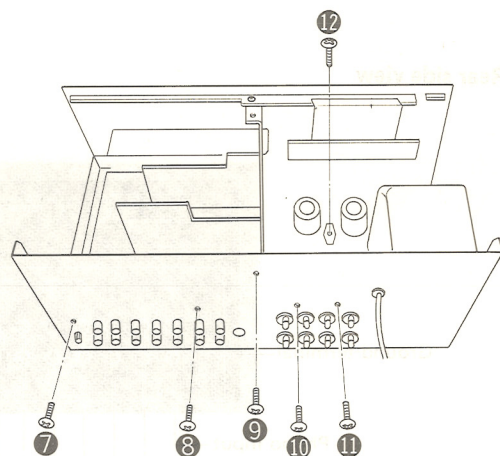


Fig. 2

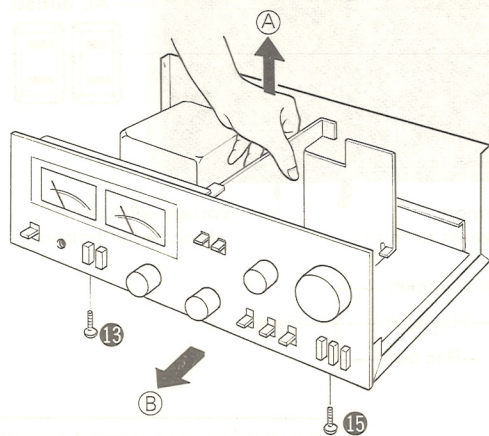


Fig. 3

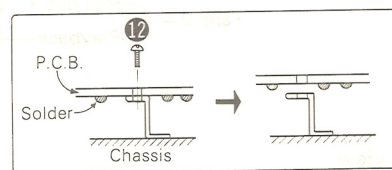


Fig. 4

■ REPLACEMENT PARTS LIST Cabinet and Chassis Parts

- Notes:**
- Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
 - ▲ indicates that only parts specified by the manufacturer be used for safety.
 - Ⓚ-marked parts are used for black type only, while O-marked parts are for silver type only.
 - Parts other than Ⓚ- and O-marked are used for both black and silver types.
 - Bracketed indications in Ref. No. columns specify the area. Parts without these indications can be used for all areas.

Black type model No. : SU-Z2 (K)

Ref. No.	Part No.	Part Name & Description
CABINET and CHASSIS PARTS		
1	○ SYW255	Panel, Front Ass'y
1	Ⓚ SYW255-1	Panel, Front Ass'y (Black)
2	SHG6067	Rubber, Front Panel
3	SHS6111	Fiber, Front Panel
4	○ SBC267	Button, Push Switches
4	Ⓚ SBC267-1	Button, Push Switches (Black)
5	○ SBN909-2	Knob, Bass, Treble & Balance
5	Ⓚ SBN909-1	Knob, Bass, Treble & Balance (Black)
6	○ SBN911-2	Knob, Volume
6	Ⓚ SBN911-1	Knob, Volume (Black)
7	SHS3253	Fiber
8	○ SHR5089	Cover, Lever Switch Knobs
8	Ⓚ SHR5089-1	Cover, Lever Switch Knobs (Black)
9	○ SBD31	Knob, Lever Switches
9	Ⓚ SBD31-1	Knob, Lever Switches (Black)
10	XCJ6P21B-A1	Jack, Headphones
11	○ SKC390H1	Cabinet
11	Ⓚ SKC390B1	Cabinet (Black)
12	SJF4813	Terminal, Speaker
13	SJF3045N	Terminal, Input
14	SMX331	Cover, Fuse
15	SJT347	Holder, Fuse
16	SHG6105	Rubber, Chassis (Voltage Adjuster)
17	SHG677	Rubber, Chassis
18	SKL245	Foot
19 [E]	SGP2230B	Rear Panel
19 [XE]	SGP2230D	Rear Panel
19 [XA]	SGP2230-1B	Rear Panel
19 [XAL]	SGPUZ2L	Rear Panel
19 [EG, EB, XGH, XGF]	SGPUZ2K	Rear Panel (SGP2230-2B with Name Plate SGT21550) (SGP2230B with Name Plate SGT21510)
20 [XE]	SFSR5N4	Bushing, AC Cord
20 [XAL]	SHR131	Bushing, AC Cord
20 [E, EG, EB, XA, XGH, XGF]	SFSR4N4	Bushing, AC Cord
21 [XE]	▲ QFC1205M	AC Cord, Power Source
21 [XA]	▲ SJA111	AC Cord, Power Source (W/Plug)
21 [XAL]	▲ QFC1207M	AC Cord, Power Source (W/Plug)
21 [E, EG, EB, XGH, XGF]	▲ SJA88	AC Cord, Power Source (W/Plug)

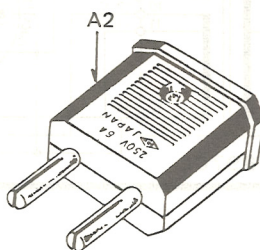
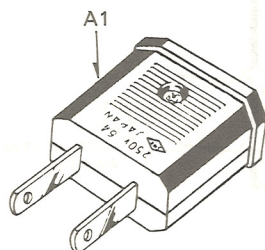
Ref. No.	Part No.	Part Name & Description
22	SMN1707	Bracket, Volume Shaft
23	SSM155N-1N	Meter (with/Meter Lamp)
24 [XA] only	▲ SJA66-2	Socket, AC Outlet (Use for [XA] only)
25 [XA] only	SMX335	Cover, AC Outlet (Use for [XA] only)
NUTS, SCREWS and WASHERS		
51	XNS8	Nut, M8 (Volume, Balance, Bass, Treble)
52	XWV8	Washer, φ8
53	XTB3+8BFN	Screw, Tapping, ⊕ 3 x 8 (Front Panel)
54 [XAL] only	XWC3B	Washer, External Toothed Lock, φ3
55	XSN3+6S	Screw, ⊕ 3 x 6 (Power Switch)
56	XWA3B	Washer, Spring, φ3
58	SHD3X23F	Screw, M3 (Voltage Adjuster)
59	XTB4+10BFZ	Screw, Tapping, ⊕ 4 x 10 (Power Transformer)
60	XWC3B	Washer, External Toothed Lock, φ3
61	XTB3+8BFZ	Screw, Tapping, ⊕ 3 x 8
62	XTB3+8BFN	Screw, Tapping, ⊕ 3 x 8 (Cabinet)
63	XTB3+8BFZ	Screw, Tapping, ⊕ 3 x 8 (Cabinet) Black
ACCESSORIES		
A1 [XA] only	▲ SJP5213-1	Plug Adaptor, AC Power Source
A2 [XA] only	▲ SJP5215	Plug Adaptor, AC Power Source
PACKING PARTS		
P1 [XAL] only	SPP649	Polyethylene Bag
P1 [Other Areas]	SPP659	Polyethylene Bag
P2 [XAL] only	SPS2559-1	Pad, Left Side
P2 [Other Areas]	SPS2559	Pad, Left Side
P3 [XAL] only	SPS2561-1	Pad, Right Side
P3 [Other Areas]	SPS2561-2	Pad, Right Side
P4	SPS2711	Pad, Corner
P5 [XAL]	○ SPG2437	Carton Box
P5 [XGF]	○ SPG2439	Carton Box
P5 [E, EG, EB, XA, XGH, XE]	○ SPG2435	Carton Box
P5	Ⓚ SPG2455	Carton Box
P6 [XE, XAL]	SQF10367	Instructions Book, Printed Matter
P6 [E, EG, EB, XGH, XGF]	SQF10365	Instructions Book, Printed Matter
P6 [XA]	SQF10511	Instructions Book, Printed Matter

Areas

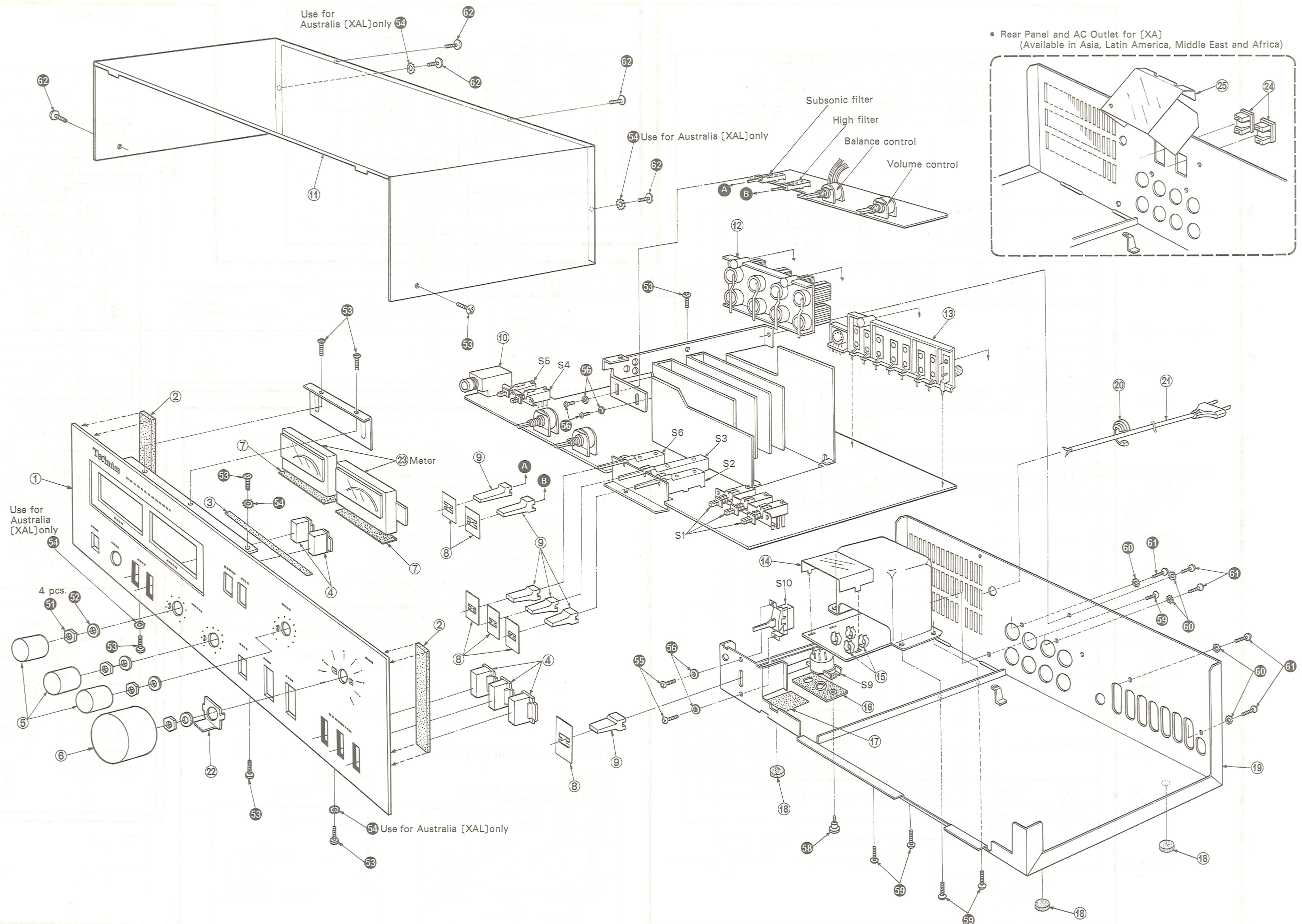
- * [E] and [EG] are available in European and Scandinavia.
- * [XGH] is available in Holland.
- * [XGF] is available in France.
- * [EB] is available in Belgium.
- * [XE] is available in United Kingdom.
- * [XAL] is available in Australia.
- * [XA] is available in Asia, Latin America, Middle East and Africa.

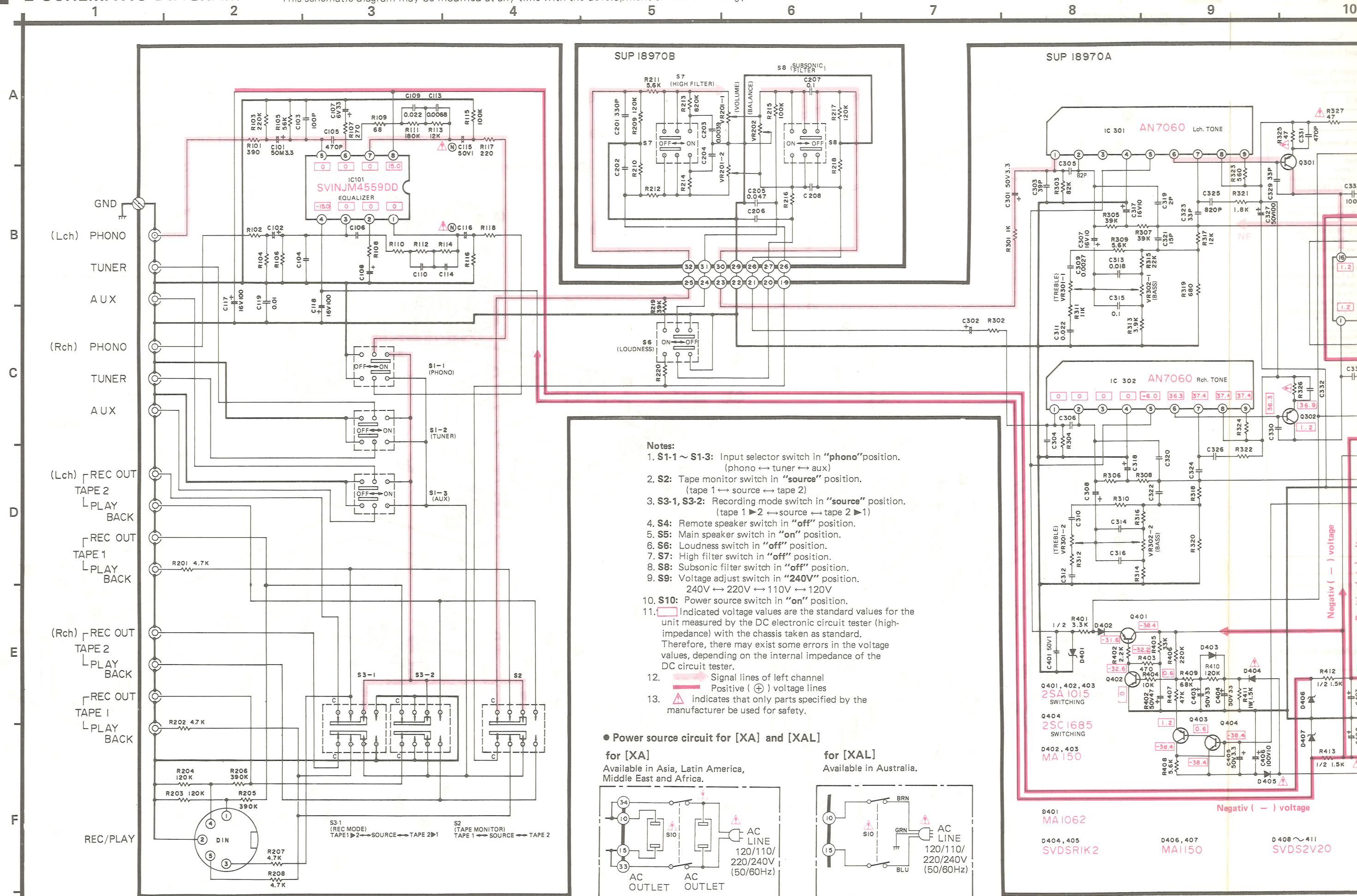
■ ACCESSORIES

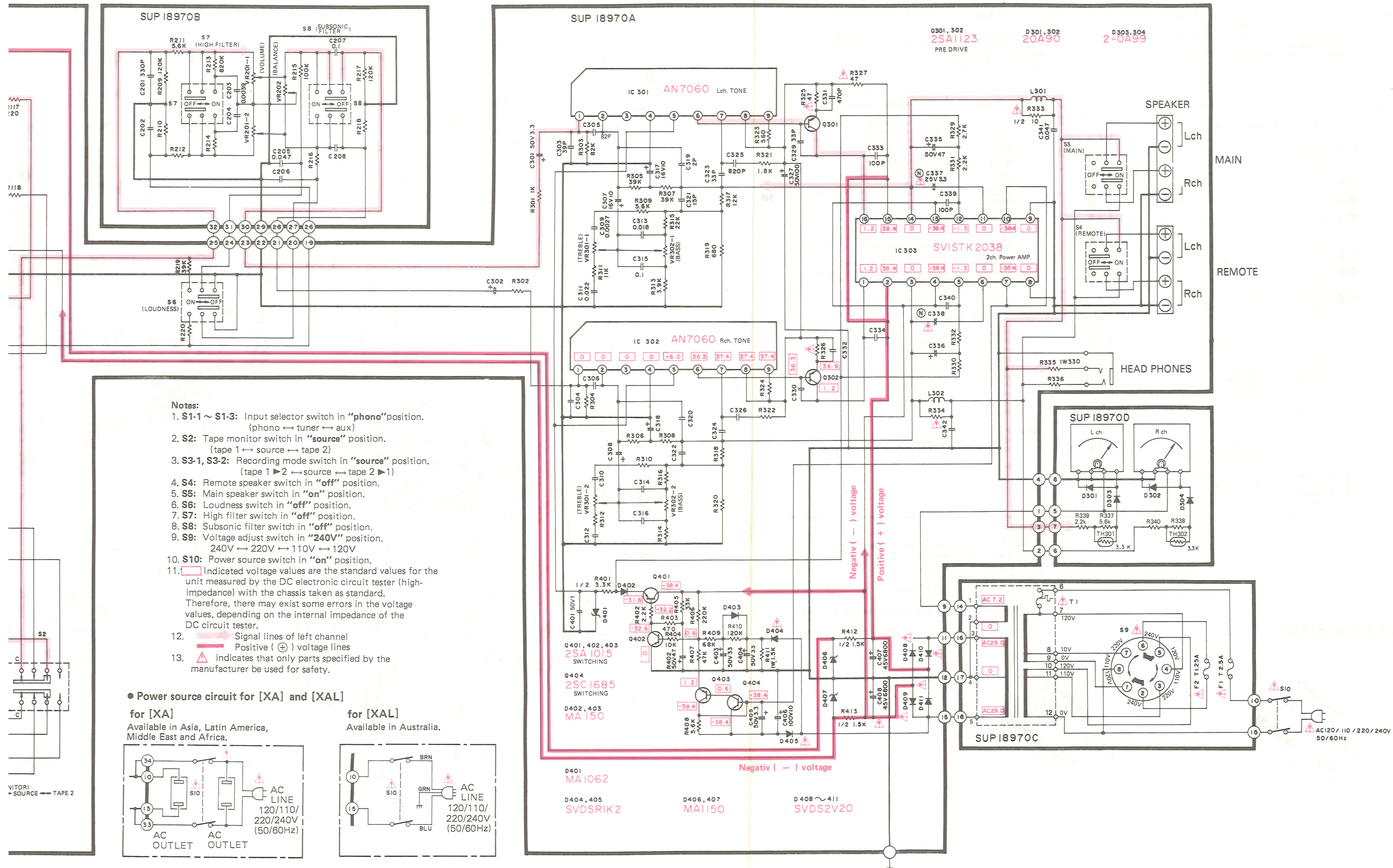
* A1 and A2 for [XA] only.



■ EXPLODED VIEWS

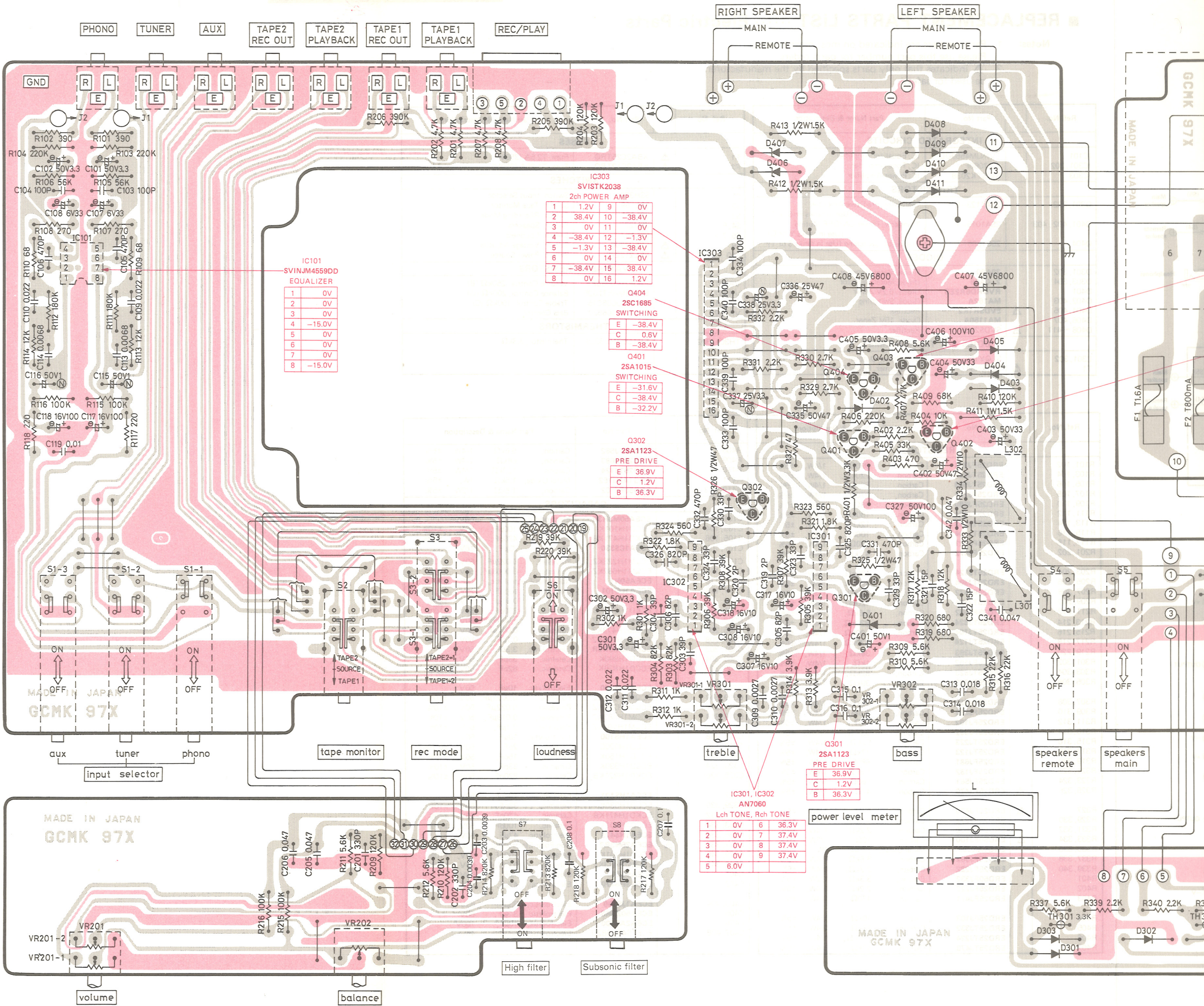


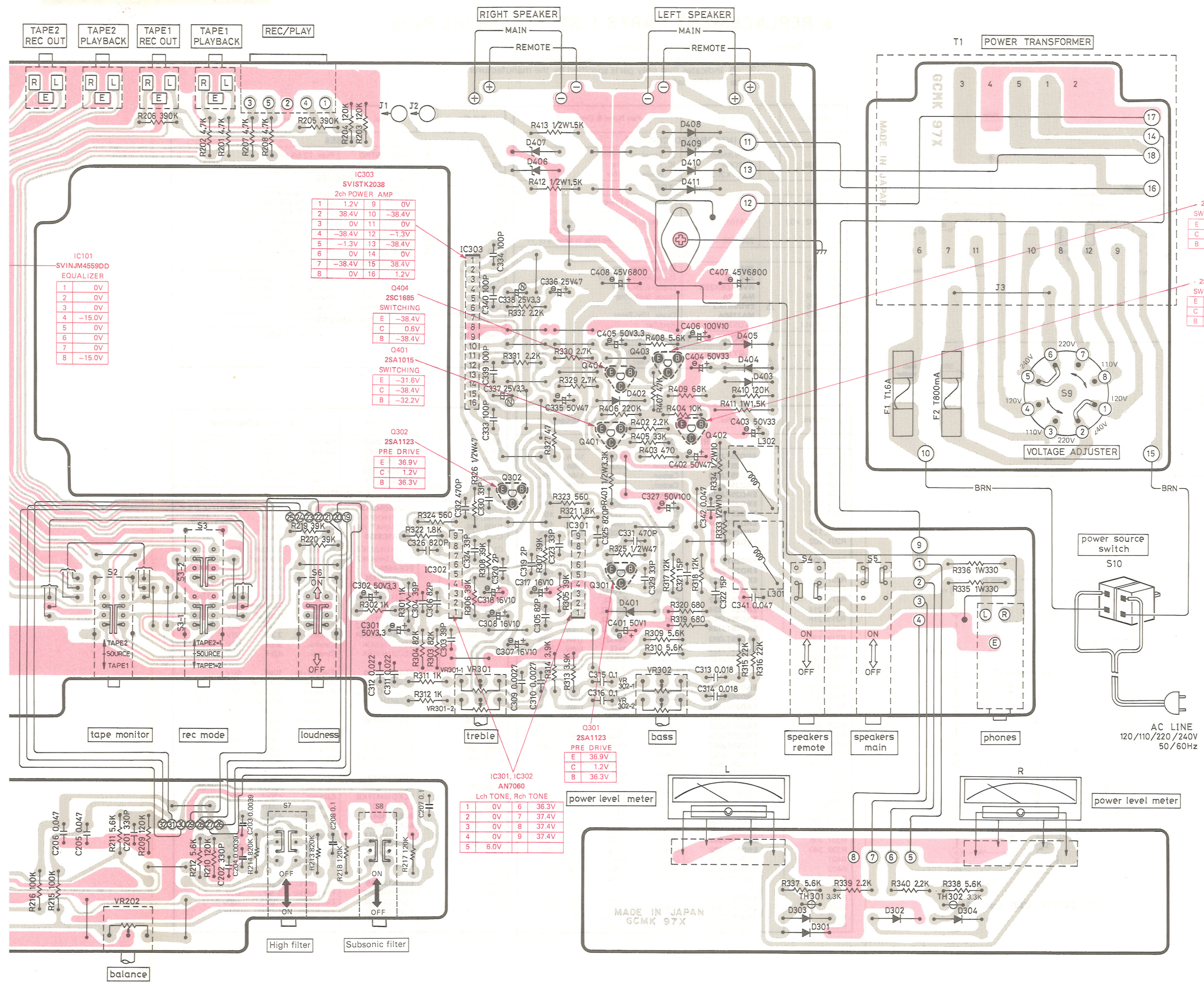




■ PRINTED CIRCUIT BOARD
WIRING VIEW

Ground (Earth) lines





Terminal guide of transistors and IC's

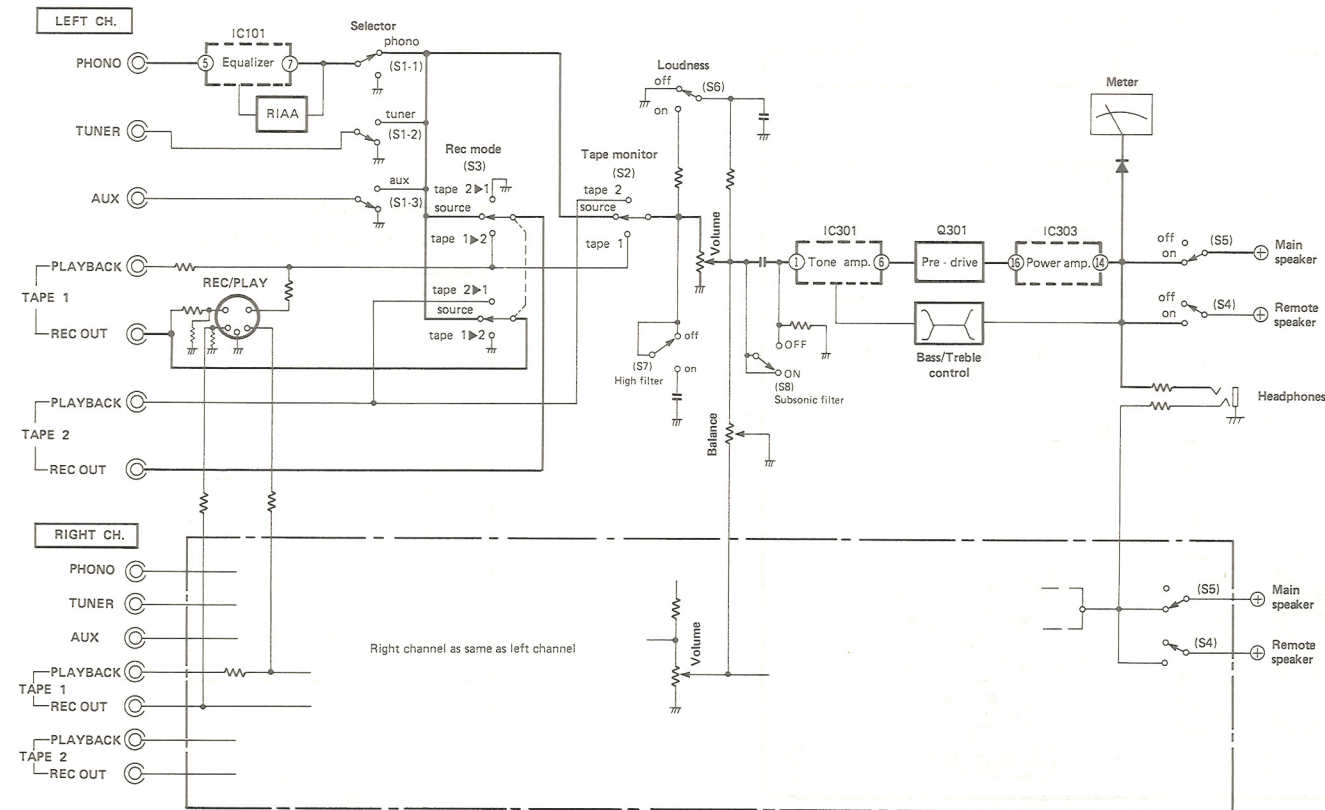
2SA1015, 2SA1123
2SC1685

AN7060

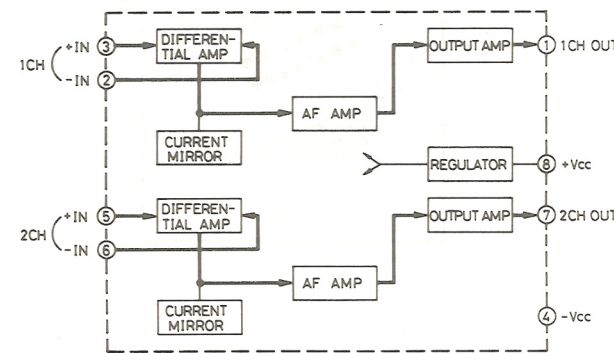
SVINJM4559DD

SVISTK2038

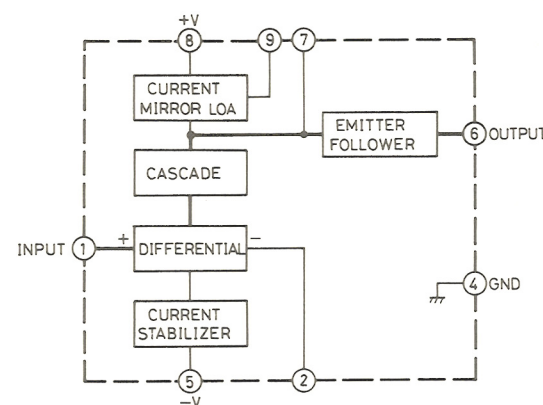
■ BLOCK DIAGRAM



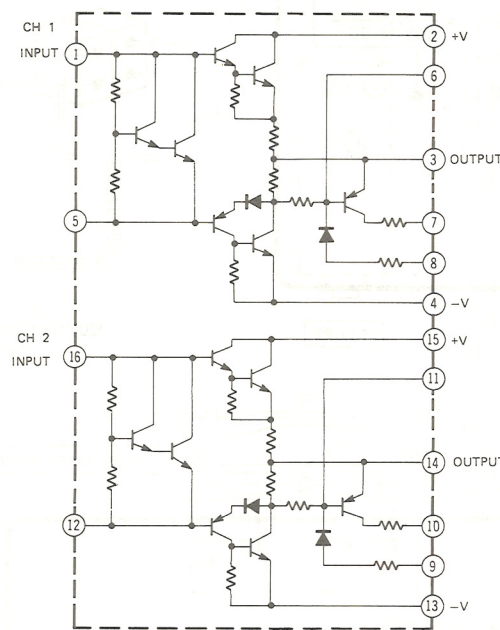
● Block diagram of IC's



IC101 (SVINJM4559DD) Equalizer



IC301 (AN7060) Tone amp.



IC303 (SVISTK2038) Power Amp

■ REPLACEMENT PARTS LIST Electric Parts

- Notes:**
- Part numbers are indicated on most mechanical parts. Please use this part number for parts orders
 - Δ indicates that only parts specified by the manufacturer be used for safety.

Ref. No.	Part No.	Part Name & Description
INTEGRATED CIRCUITS		
IC101	SVINJM4559DD	IC, Equalizer Amplifier
IC301, 302	AN7060F	IC, Tone Amplifier
IC303	SVISTK2038	IC, Power Amplifier
TRANSISTORS		
Q301, 302	2SA1123-R	Transistor, Pre Drive Amplifier (Use in ranks R, S or T)
Q401, 402, 403	2SA1015-Y	Transistor, Power ON/OFF Muting (Use in ranks Y or O)
Q404	2SC1685-T	Transistor, Switching (Use in ranks S or T)
DIODES		
D301, 302	20A90	Diode, Meter Detector
D303, 304	2-0A99	Diode, Meter Detector
D401	RVDRD6R2EB	Diode, 6.2V Zener
D402, 403	MA162A	Diode, Switching
D404, 405	SVDSR1K2	Rectifier
D406, 407	MA1150A	Diode, 15V Zener
D408 ~ 411	SVDS2V20	Rectifier
COILS and TRANSFORMER		
L301, 302	SLQY15G-3P	Coil, Power Output
T1	SLT5N347	Transformer, Power Source

Ref. No.	Part No.	Part Name & Description
FUSES		
F1	Δ XBA2C25TRO	Fuse, T2.5A (250V)
F2	Δ XBA2C12TRO	Fuse, T1.25A (250V)
SWITCHES		
S1	SSH379	Switch, Input Selector
S2	SSL169	Switch, Tape Monitor
S3	SSL171	Switch, Recording Mode
S4, 5	SSH277	Switch, Speakers
S6, 7, 8	SSL167	Switch, Loudness
S9	ESE37200	Switch, Voltage Adjuster
S10	ESL21227S	Switch, Power Source
VARIABLE RESISTORS		
VR201	EWJFHA066BF5	Volume Control, 250kΩ (B)
VR202	EVHMA531G25	Balance Control, 200kΩ (G)
VR301	EWJFCO066C15	Treble Control, 100kΩ (C)
VR302	EWJFCY066530	Bass Control
THERMISTORS		
TH301, 302	ERTD2ZHL332S	Thermistor, 3.3kΩ

Ref. No.	Part No.	Part Name & Description
RESISTORS		
R101, 102	ERD25FJ391	Carbon, 390Ω, 1/4W, ±5%
R103, 104	ERD25TJ224	Carbon, 220kΩ, 1/4W, ±5%
R105, 106	ERD25TJ563	Carbon, 56kΩ, 1/4W, ±5%
R107, 108	ERD25FJ271	Carbon, 270Ω, 1/4W, ±5%
R109, 110	ERD25FJ680	Carbon, 68Ω, 1/4W, ±5%
R111, 112	ERD25TJ184	Carbon, 180kΩ, 1/4W, ±5%
R113, 114	ERD25TJ123	Carbon, 12kΩ, 1/4W, ±5%
R115, 116	ERD25TJ104	Carbon, 100kΩ, 1/4W, ±5%
R117, 118	ERD25FJ221	Carbon, 220Ω, 1/4W, ±5%
R201, 202	ERD25FJ472	Carbon, 4.7kΩ, 1/4W, ±5%
R203, 204	ERD25TJ124	Carbon, 120kΩ, 1/4W, ±5%
R205, 206	ERD25TJ394	Carbon, 390kΩ, 1/4W, ±5%
R207, 208	ERD25FJ472	Carbon, 4.7kΩ, 1/4W, ±5%
R209, 210	ERD25TJ124	Carbon, 120kΩ, 1/4W, ±5%
R211, 212	ERD25FJ562	Carbon, 5.6kΩ, 1/4W, ±5%
R213, 214	ERD25TJ824	Carbon, 820kΩ, 1/4W, ±5%
R215, 216	ERD25TJ104	Carbon, 100kΩ, 1/4W, ±5%
R217, 218	ERD25TJ124	Carbon, 120kΩ, 1/4W, ±5%
R219, 220	ERD25TJ393	Carbon, 39kΩ, 1/4W, ±5%
R301, 302	ERD25FJ102	Carbon, 1kΩ, 1/4W, ±5%
R303, 304	ERD25TJ823	Carbon, 82kΩ, 1/4W, ±5%
R305, 306	ERD25TJ393	Carbon, 39kΩ, 1/4W, ±5%
R307, 308	ERD25TJ393	Carbon, 39kΩ, 1/4W, ±5%
R309, 310	ERD25FJ562	Carbon, 5.6kΩ, 1/4W, ±5%
R311, 312	ERD25FJ102	Carbon, 1kΩ, 1/4W, ±5%
R313, 314	ERD25FJ392	Carbon, 3.9kΩ, 1/4W, ±5%
R315, 316	ERD25TJ223	Carbon, 22kΩ, 1/4W, ±5%
R317, 318	ERD25TJ123	Carbon, 12kΩ, 1/4W, ±5%
R319, 320	ERD25FJ681	Carbon, 680Ω, 1/4W, ±5%
R321, 322	ERD25FJ182	Carbon, 1.8kΩ, 1/4W, ±5%
R323, 324	ERD25FJ561	Carbon, 560Ω, 1/4W, ±5%
R325, 326	ERD25FJ470	Carbon, 47Ω, 1/4W, ±5%
R327	ERD25FJ470	Carbon, 47Ω, 1/4W, ±5%
R329, 330	ERD25FJ272	Carbon, 2.7kΩ, 1/4W, ±5%
R331, 332	ERD25FJ222	Carbon, 2.2kΩ, 1/4W, ±5%
R333, 334	ERD50FJ100	Carbon, 10Ω, 1/2W, ±5%
R335, 336	ERG1ANJ331	Metal Oxide, 330Ω, 1W, ±5%
R337, 338	ERD25FJ562	Carbon, 5.6kΩ, 1/4W, ±5%
R339, 340	ERD25FJ222	Carbon, 2.2kΩ, 1/4W, ±5%
R401	ERD50FJ332	Carbon, 3.3kΩ, 1/2W, ±5%
R402	ERD25FJ222	Carbon, 2.2kΩ, 1/4W, ±5%
R403	ERD25FJ471	Carbon, 470Ω, 1/4W, ±5%
R404	ERD25FJ103	Carbon, 10kΩ, 1/4W, ±5%
R405	ERD25TJ333	Carbon, 33kΩ, 1/4W, ±5%
R406	ERD25TJ224	Carbon, 220kΩ, 1/4W, ±5%
R407	ERD25TJ473	Carbon, 47kΩ, 1/4W, ±5%

Ref. No.	Part No.	Part Name & Description
R408	ERD25FJ562	Carbon, 5.6kΩ, 1/4W, ±5%
R409	ERD25TJ683	Carbon, 68kΩ, 1/4W, ±5%
R410	ERD25TJ124	Carbon, 120kΩ, 1/4W, ±5%
R411	ERG1ANJ152	Metal Oxide, 1.5kΩ, 1W, ±5%
R412, 413	ERD50FJ152	Carbon, 1.5kΩ, 1/2W, ±5%
CAPACITORS		
C101, 102	ECEA50M3R3R	Electrolytic, 3.3μF, 50V
C103, 104	ECCD1H101K	Ceramic, 100pF, 50V, ±10%
C105, 106	ECKD1H471KB	Ceramic, 470pF, 50V, ±10%
C107, 108	ECEA1CS330	Electrolytic, 33μF, 16V
C109, 110	ECQM1H223KZ	Polyester, 0.022μF, 50V, ±10%
C113, 114	ECQM1H682KZ	Polyester, 0.0068μF, 50V, ±10%
C115, 116	ECEA50N1	Non-Polar Electrolytic, 1μF, 50V
C117, 118	ECEA1ES101	Electrolytic, 100μF, 25V
C119	ECKD1H103ZF	Ceramic, 0.01μF, 50V, ±80%
C201, 202	ECKD1H331KB	Ceramic, 330pF, 50V, ±10%
C203, 204	ECQM1H392KZ	Polyester, 0.0039μF, 50V, ±10%
C205, 206	ECQM1H473KZ	Polyester, 0.047μF, 50V, ±10%
C207, 208	ECQM1H104KZ	Polyester, 0.1μF, 50V, ±10%
C301, 302	ECEA50M3R3R	Electrolytic, 3.3μF, 50V
C303, 304	ECCD1H390K	Ceramic, 39pF, 50V, ±10%
C305, 306	ECCD1H820K	Ceramic, 82pF, 50V, ±10%
C307, 308	ECEA1HS100	Electrolytic, 10μF, 50V
C309, 310	ECQM1H272KZ	Polyester, 0.0027μF, 50V, ±10%
C311, 312	ECQM1H223KZ	Polyester, 0.022μF, 50V, ±10%
C313, 314	ECQM1H183KZ	Polyester, 0.018μF, 50V, ±10%
C315, 316	ECQM1H104KZ	Polyester, 0.1μF, 50V, ±10%
C317, 318	ECEA1HS100	Electrolytic, 10μF, 50V
C319, 320	ECCD1H020C	Ceramic, 2pF, 50V, ±0.25pF
C321, 322	ECCD1H150K	Ceramic, 15pF, 50V, ±10%
C323, 324	ECCD1H330K	Ceramic, 33pF, 50V, ±10%
C325, 326	ECKD1H821KB	Ceramic, 820pF, 50V, ±10%
C327	ECEA1HS101	Electrolytic, 100μF, 50V
C329, 330	ECCD1H330K	Ceramic, 33pF, 50V, ±10%
C331, 332	ECKD1H471KB	Ceramic, 470pF, 50V, ±10%
C333, 334	ECCD1H101K	Ceramic, 100pF, 50V, ±10%
C335, 336	ECEA1HS470	Electrolytic, 47μF, 50V
C337, 338	ECEA25N3R3	Non-Polar Electrolytic, 3.3μF, 25V
C339, 340	ECCD1H101K	Ceramic, 100pF, 50V, ±10%
C341, 342	ECQM1H473KZ	Polyester, 0.047μF, 50V, ±10%
C401	ECEA50Z1	Electrolytic, 1μF, 50V
C402	ECEA1HS470	Electrolytic, 47μF, 50V
C403, 404	ECEA1JS330	Electrolytic, 33μF, 63V
C405	ECEA50Z3R3	Electrolytic, 3.3μF, 50V
C406	ECEA2AS100	Electrolytic, 10μF, 100V
C407, 408	ECETS45V682U	Electrolytic, 6800μF, 45V